

What is claimed is:

1. A master disk for magnetic printing, the master disk forming a magnetic pattern in a magnetic recording medium by the magnetic printing, the magnetic disk including

5 a substrate having grooves, the grooves including grooves of different depths; and

magnetic materials embedded on a substrate in the grooves of different depths.

10 2. A method of manufacturing the master disk of claim 1, including forming the groove by repetitive photolithography.

3. The master disk for magnetic printing as claimed in claim 1, wherein the depths of the grooves for embedding the magnetic
15 material is proportional to a pattern width in a sector direction of a servo pattern.

4. The master disk for magnetic printing as claimed in claim 3, wherein the depth of the grooves for embedding the magnetic
20 material varies stepwise with respect to the pattern width of the servo pattern.

5. A method of manufacturing the master disk of claim 3, including forming the grooves by repetitive photolithography.

6. A method of manufacturing the master disk of claim 4, including forming the grooves by repetitive photolithography.

5

7. The master disk for magnetic printing as claimed in claim 3, wherein the grooves for embedding the magnetic material have a first region where the pattern width of the servo pattern is narrow and a second region where the pattern width is wide, 10 wherein the grooves are shallow in the first region, and deep in the second region.

8. The master disk for magnetic printing as claimed in claim 7, wherein the depth of the grooves for embedding the magnetic 15 material varies stepwise with respect to the pattern width of the servo pattern.

9. A method of manufacturing the master disk of claim 8, including forming the grooves by repetitive photolithography. 20

10. A method of manufacturing the master disk of claim 7, including forming the grooves by repetitive photolithography.